

June 29<sup>th</sup>, 2018, 17:10 UTC

The following graphs represent the triple coordinated launch for the University of Maryland – Baltimore County supersite (UMBC: 39.2543, -76.7093), the Hart Miller Island supersite (HMI: 39.24219, -76.36279), and Howard University: Beltsville (HUBV: 39.056, -76.876) on June 29<sup>th</sup>, 2018 at approximately 17:10 UTC with initial wind blowing from the northwest. This launch was preceded by a 06Z ozonesonde from HUBV. There is a large ozone discrepancy between land and water ozone through the first 2 km across the three sites.

Over water in the first 2 km, ozone values are in the 70-80 ppbv range; while the two land sites show good agreement of 60-70 ppbv through the first 2 km. All three sondes show good qualitative and quantitative agreement above 2 km. Of note are the sharp ozone layers at 2.5 km and 4 km. This is the first day of a 4-day ozone event in which 24 ozonesondes were launched across three sites.

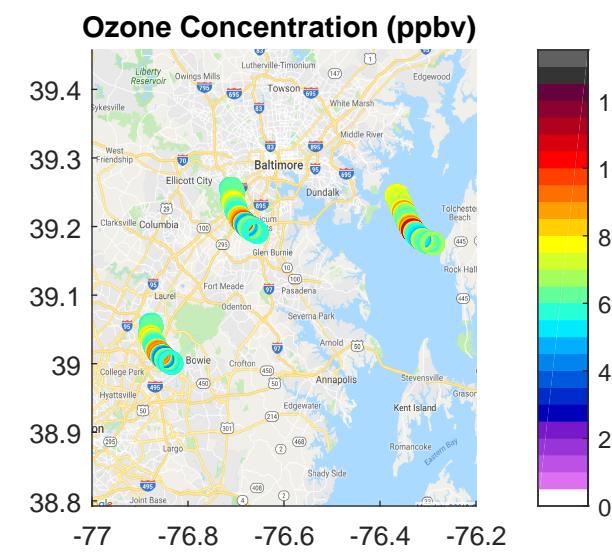
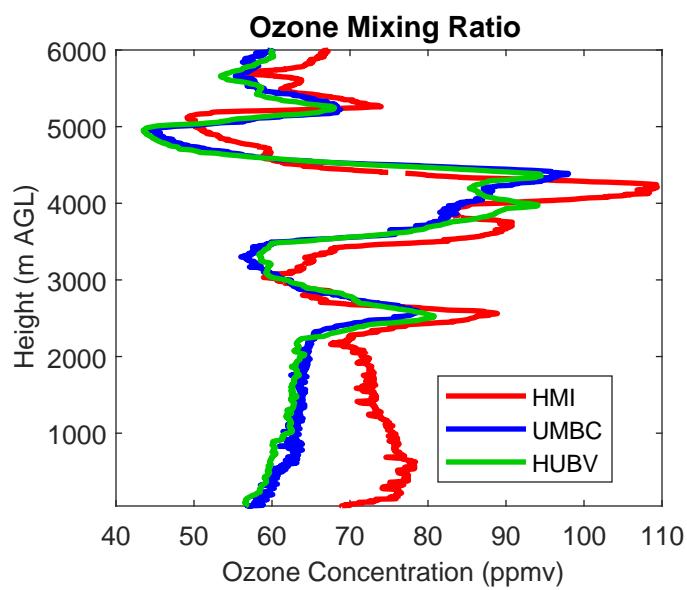
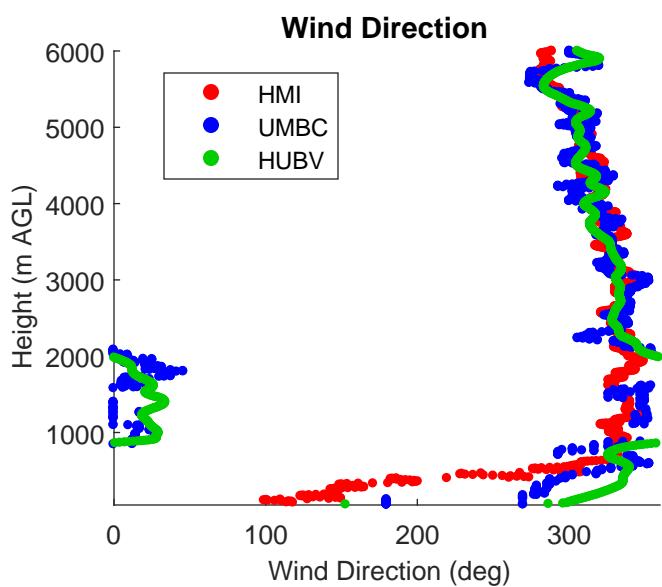
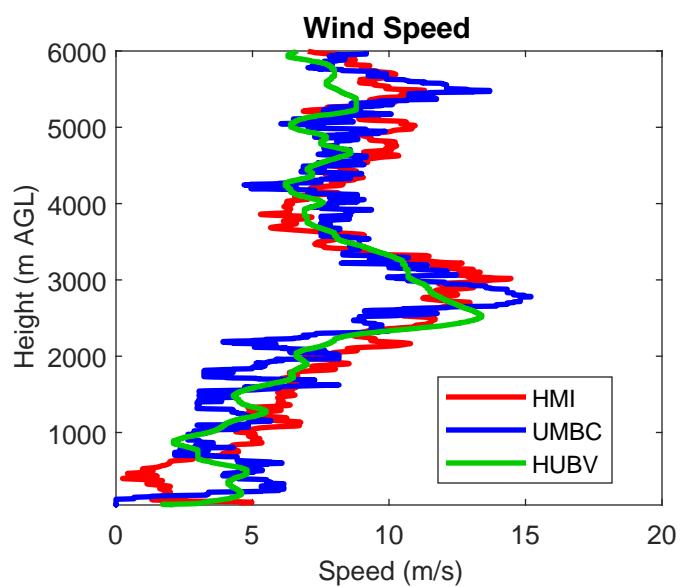
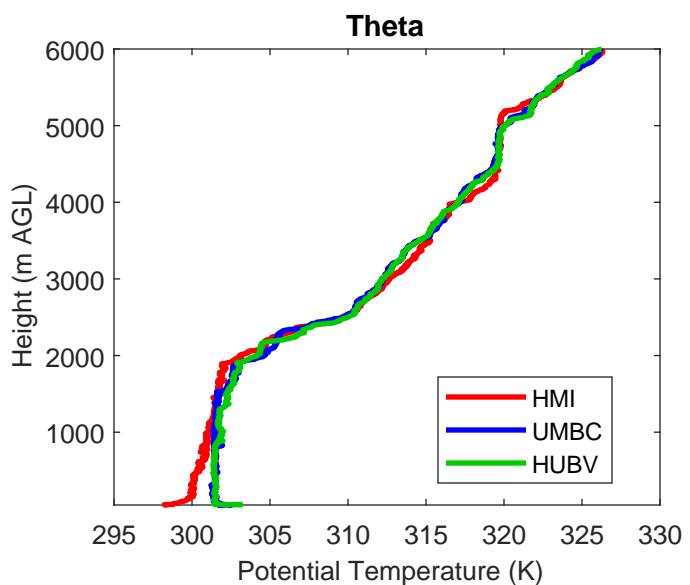
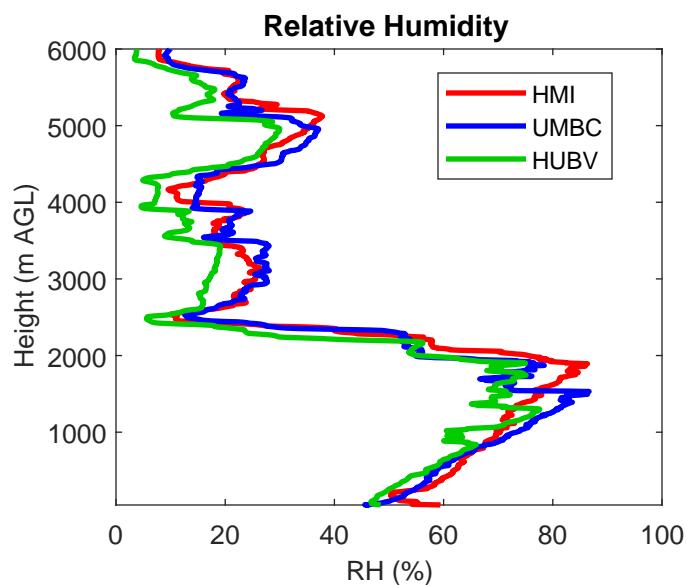
**PLEASE NOTE:** This data is preliminary and should not be used for official business.

UMBC Sonde POC: John Sullivan ([john.t.sullivan@nasa.gov](mailto:john.t.sullivan@nasa.gov))

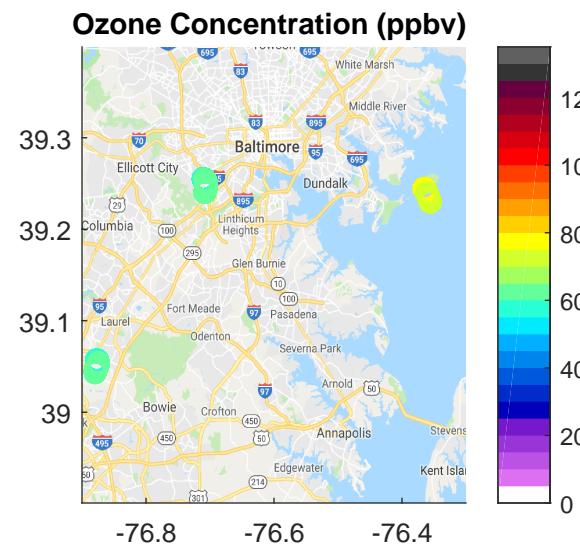
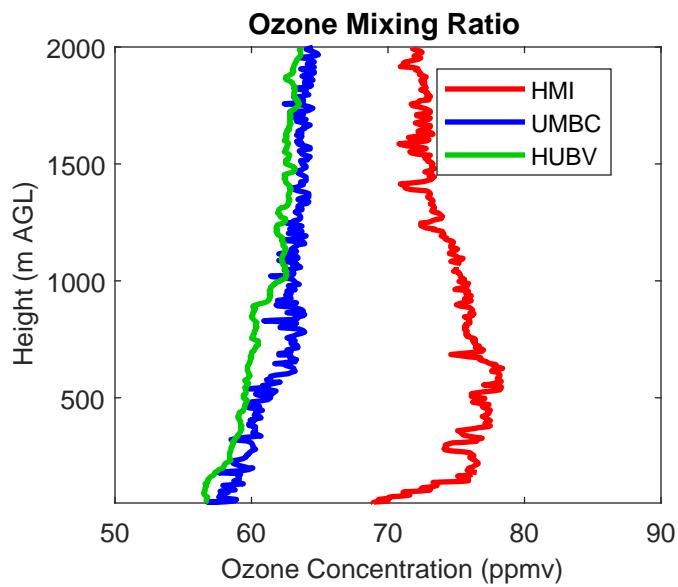
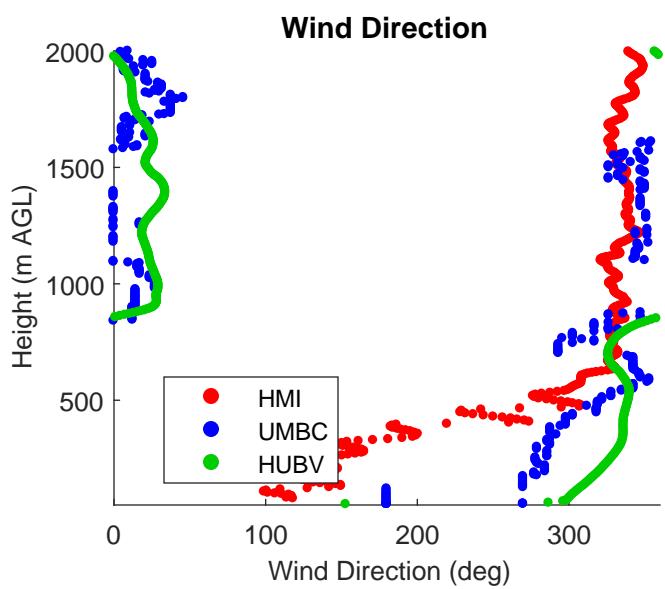
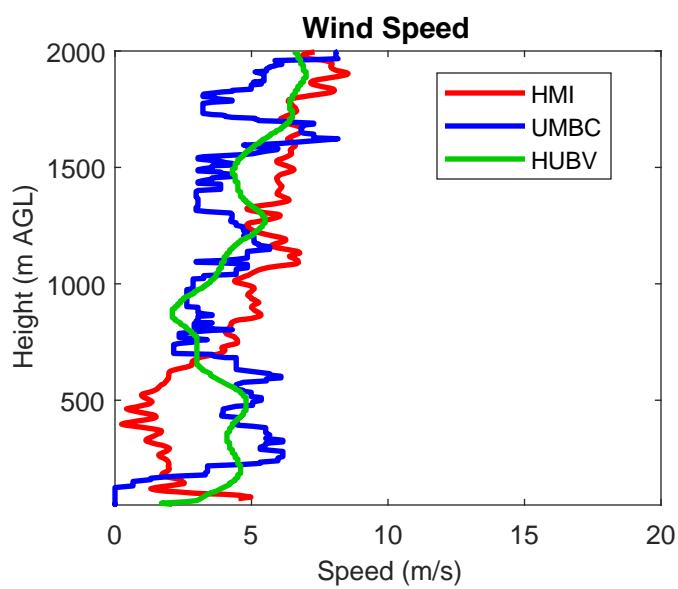
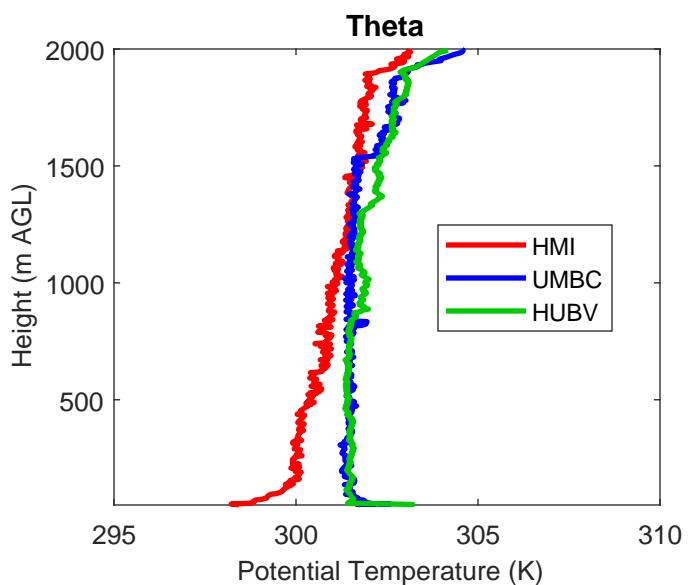
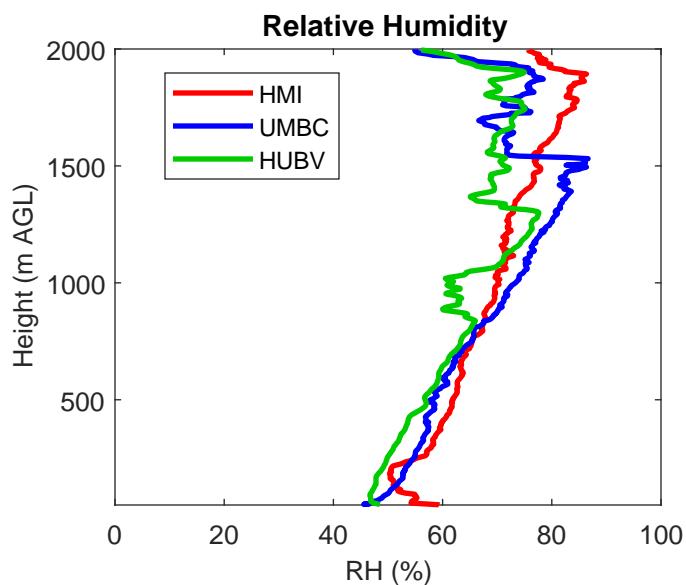
HMI Sonde POC: Lance Niño ([lwn4@cornell.edu](mailto:lwn4@cornell.edu))

HUBV Sonde POC: Ricardo Sakai ([ricardo.k.sakai@howard.edu](mailto:ricardo.k.sakai@howard.edu))

Ozonesonde launched June 29th, 2018 at 17:10 (HMI), 17:11 (UMBC), and 17:27 UTC (HUBV) [0-6 km]



Ozonesonde launched June 29th, 2018 at 17:10 (HMI), 17:11 (UMBC), and 17:27 UTC (HUBV) [0-2 km]



June 29<sup>th</sup>, 2018, 20:00 UTC

The following graphs represent the coordinated launch for the University of Maryland – Baltimore County supersite (UMBC: 39.2543, -76.7093) and the Hart Miller Island supersite (HMI: 39.24219, -76.36279) on June 29<sup>th</sup>, 2018 at approximately 20:00 UTC. Below 2.5 km, the land and water sites show an ozone discrepancy of 0-15 ppbv. Even though the two launches were offset by 30 minutes, there is good quantitative and qualitative agreement between the two sondes in the free troposphere.

The most striking feature of this launch was the sharp rise in ozone over the HMI site from 50-150 m. In nearly 100 m, the ozone jumps from 66 to 82 ppbv. Ground sensors corroborate this jump, as around 15 minutes later, the high ozone mixed to the ground. Of particular note is the high ozone (70-90 ppbv) just above the boundary layer of 2.5 km. This high ozone would contribute to exceedances in future days as air in the free troposphere mixes down diurnally.

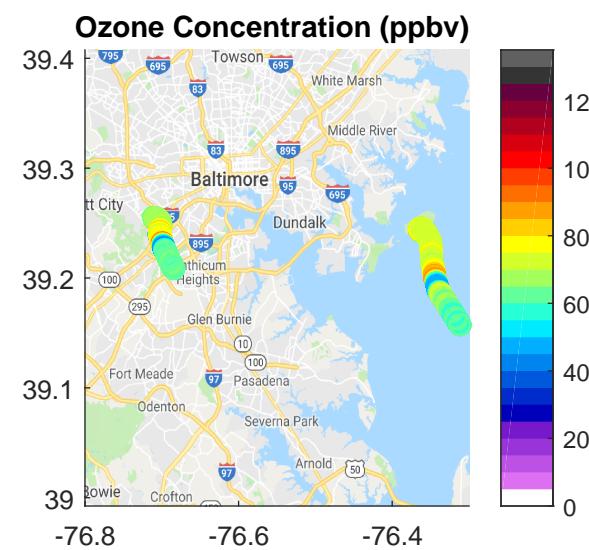
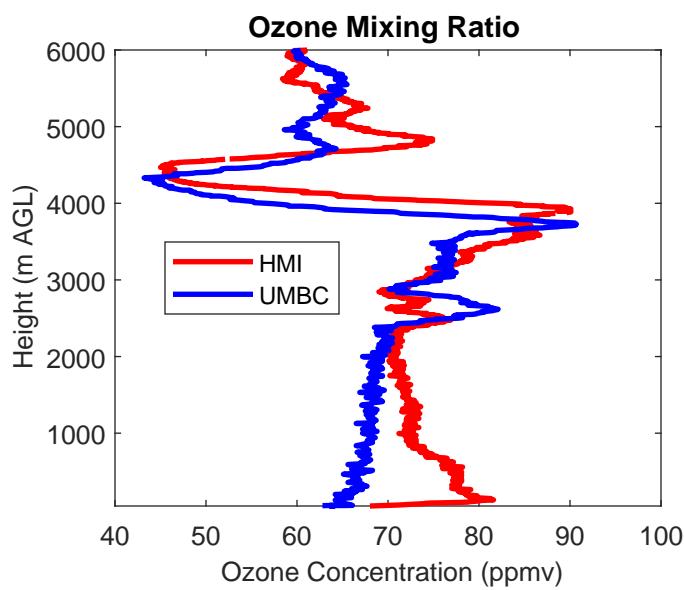
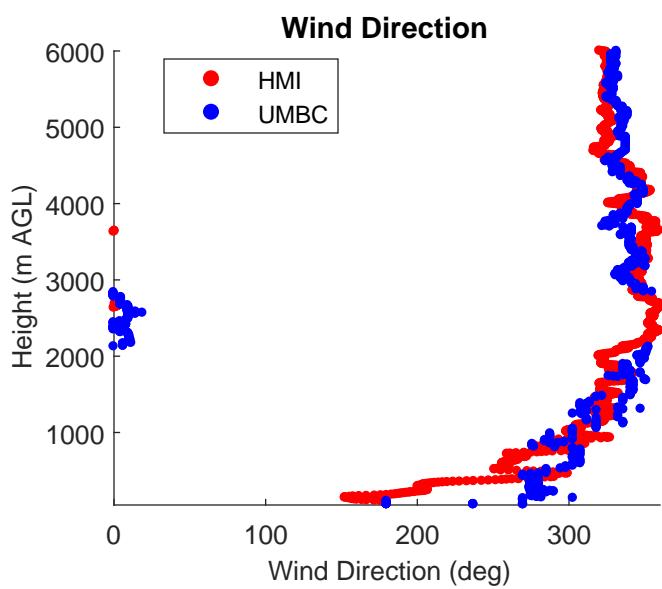
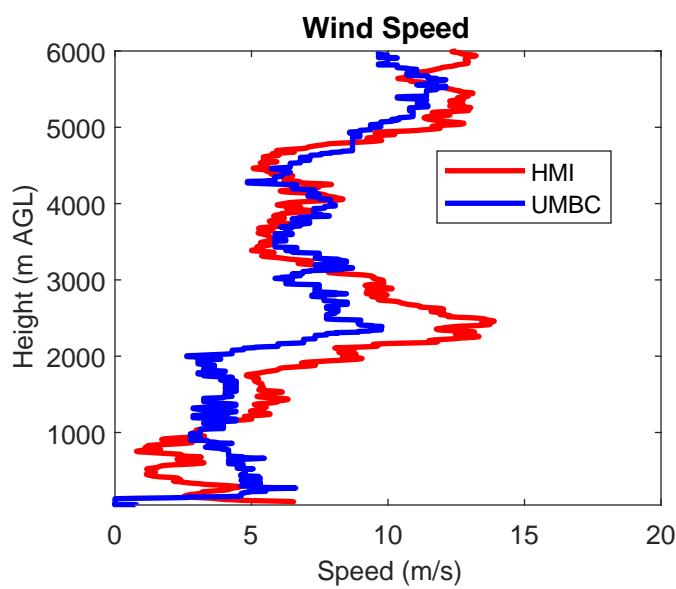
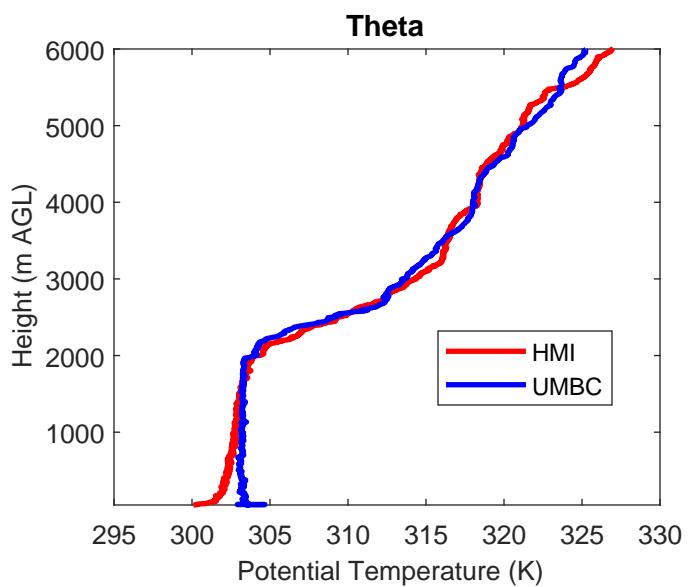
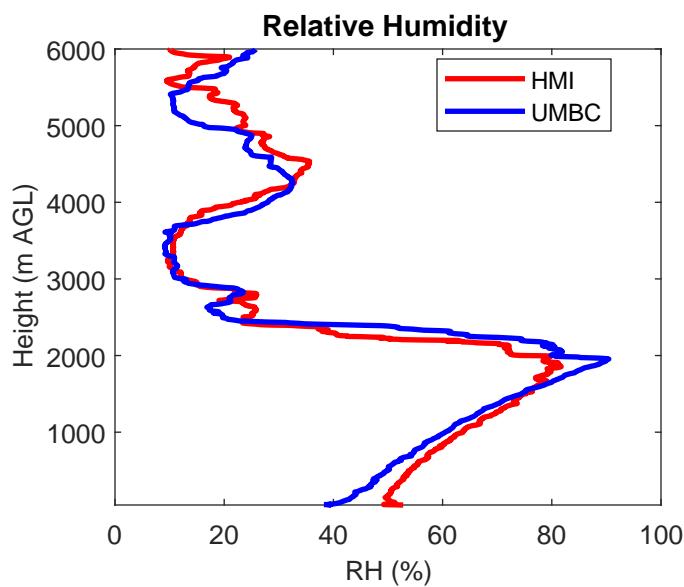
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UMBC Sonde POC: John Sullivan ([john.t.sullivan@nasa.gov](mailto:john.t.sullivan@nasa.gov))

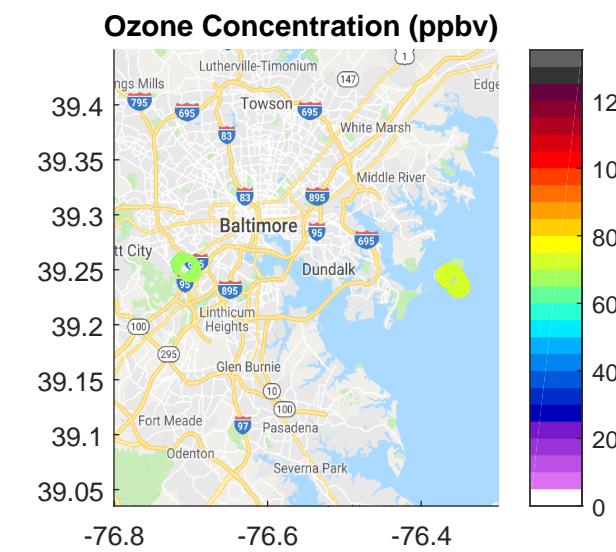
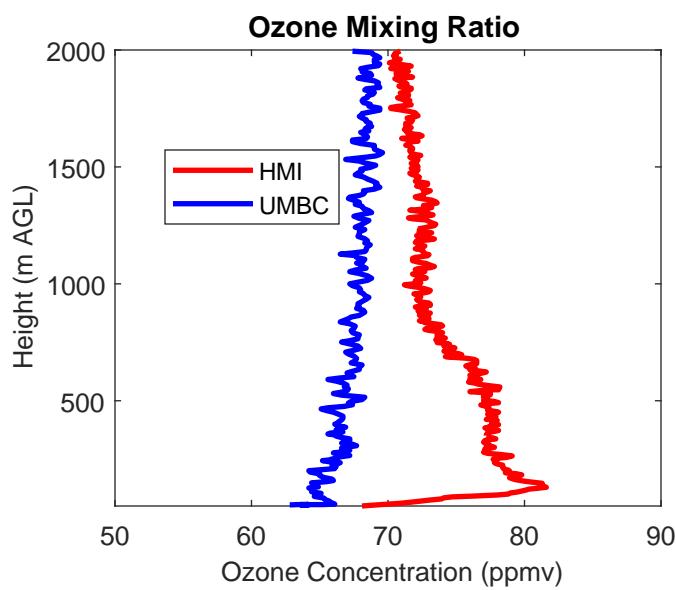
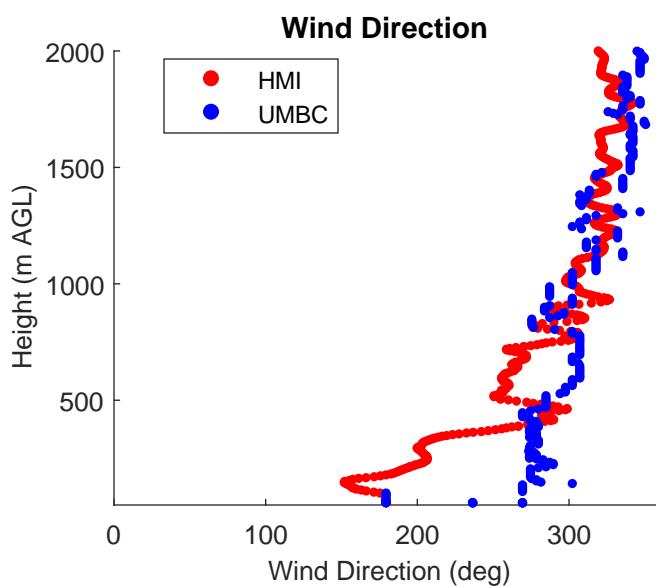
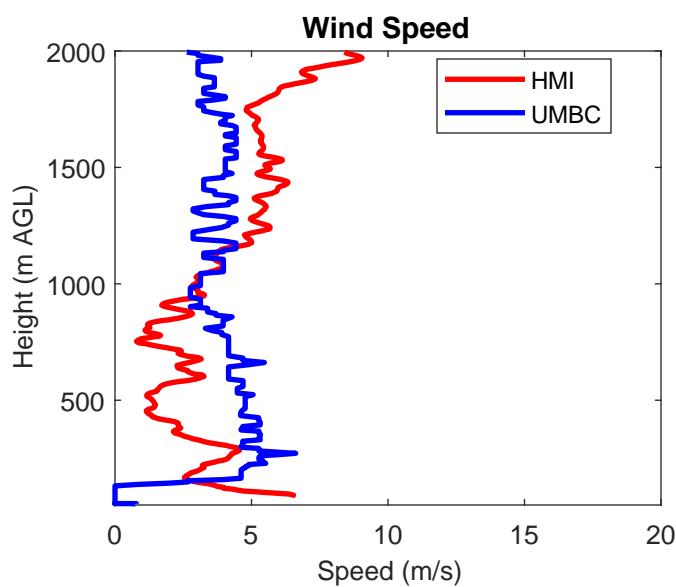
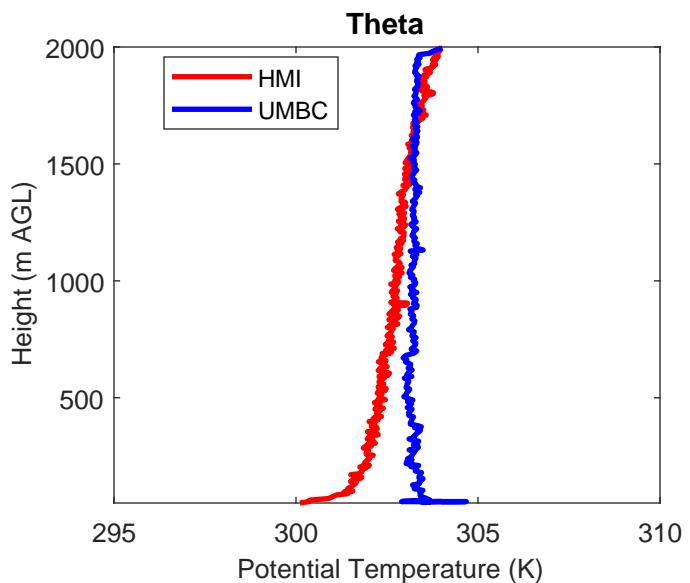
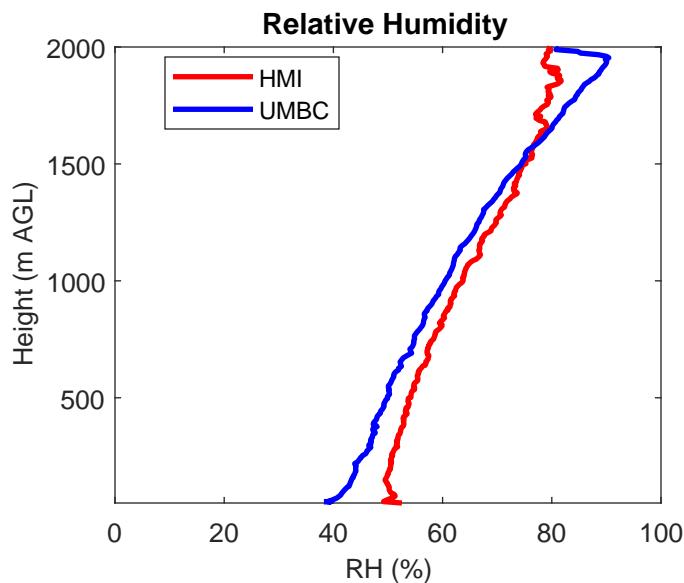
HMI Sonde POC: Lance Niño ([lwn4@cornell.edu](mailto:lwn4@cornell.edu))

HUBV Sonde POC: Ricardo Sakai ([ricardo.k.sakai@howard.edu](mailto:ricardo.k.sakai@howard.edu))

# Ozonesonde launched June 29th, 2018 at 20:03 (HMI) and 20:35 UTC (UMBC) [0-6 km]



# Ozonesonde launched June 29th, 2018 at 20:03 (HMI) and 20:35 UTC (UMBC) [0-2 km]



# Ozonesonde launched June 29th, 2018 at 06:09 UTC (HUBV) [0-10 km]

